

An analytical study on Socio-Economic and Working conditions of Fishermen in Urban area of Visakhapatnam District

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Abstract

Fishing has been one of the oldest economic activities of fisher folk who are engaged in fishing activities. Millions of people all over the world have been engaged in fishing and fish trading over the years. In a sense, fish and fisher folk are together and inseparable to great extent. The fisherman goes to the sea, stays, searches, catches fish, spends even nights, takes risk and bears uncertainties and ventures bravely and rewardingly. Still, the just fruits of their struggle on an around water do not always reach and rejoice the men and women. Many hurdles and riddles seem to prevail and persist. They are the victims of economic oppression and live under social prejudices with low social status. There is a need to undertake systematic study on socio-economic and working conditions of the fishermen. This is a descriptive study based on primary data collected through a structured schedule. The study would highlight the socio-economic and working conditions of fishermen/women in urban area of Visakhapatnam.

Key words: Fishing, Fishermen, Socio-economic Conditions and Working Conditions

Introduction

India has a huge working population of 481 million (NSSO, 2011) and almost 92 per cent of this workforce is in the unorganized sector. There are numerous occupational groups pursuing economic activities from generation to generation without formal schooling and scattered all over the country with diffused employer - employee relationship. The occupational wise distribution of employment indicates that 62 per cent of the workers are engaged in agriculture, 11 per cent in industry and 27 per cent in the services sector. Fishing is done under informal sector.

Fishing is the activity of trying to catch fish. Fish are normally caught in the wild. Techniques for catching fish include hand gathering, spearing, netting, angling and trapping. "Fishing" may include catching aquatic animals other than fish, such as mollusks, cephalopods, crustaceans, and echinoderms. Fishing is still an important element of locally based economics for a large number of households across the developing world; fisheries have become an increasingly dynamic sector of the world food industry, with many states striving to take advantage of the new opportunities that the sector presents in response to growing international demand for fish and fishery products.

Fisherman

A fisherman or fisher is someone who captures fish and other animals from a body of water, or gathers shellfish. Worldwide, there are about 38 million commercial and subsistence fishermen and fish farmers. Fisherman may be professional or recreational and

may be both men or women. Fishing has existed as a means of obtaining food since the Mesolithic period.

Fisherwoman

In coastal fishing, once the catch is handed by men, women take over the entire post-harvest operations namely sorting on the spot auctioning, gutting and salting(curing), drying, carrying the dried fish to market in the mainland and trading; the fish are sold at both retail and wholesale rates. Besides, selling the fish in the market, they carry baskets full of fish on their head to sell on door-to-door basis (**Vijaya Khader, 2019**).

Working Conditions

Fishermen use a variety of equipment to catch fish. This can include nets of various sizes, fishing lines and traps. Many also operate machinery designed to hoist captured fish onto a boat. Often, this job involves maintaining machinery in good working order, troubleshooting and repairing equipment during fishing trips and keeping the fishing vessel clean. In addition, some fishing jobs involve diving into a body of water and catching fish with spears, while others require the use of rakes to collect kelp and other types of water-based vegetation. Fisher women can sell fishes in streets and shops in daytime.

Review of Literature

Monalisha Chakraborty (2016), in his study reveals that the socio-economic conditions of the fisherman of Bali Nolia Sahi are not good. The educational status of the boys is much lower than that of the girls. Their housing conditions are not too bad, but in terms of fishing, they don't get much help from the Government. They lack the necessities of their fishing, which deprived the development of fishing in the State.

International Labour Organization (ILO, 1999) indicates that the problems of employment are particularly acute in seasonal fisheries where vessels and gear have to be set aside for part of the year; in some cases, the lay-up time may be as much as six months. Fishermen in some countries have the protection of strong social services that help to offset loss of earnings, but others do not have such protection for themselves and their families. Following the Rio Summit, fisheries managers in general reassessed their approach to fisheries management and many of them now view the "open access" phenomena in a new light. Moreover, more attention has been directed at capacity in the capture sector and ways to align it with available living aquatic resources. Changes in management strategies are already under way through the adoption of a precautionary approach to fisheries management. These changes will have an effect on the structure of the fish capture industry in years to come since objectives will also have to be amended to include a change from maximum employment to sustainable employment.

Need for the Study

Fishing in our country plays a substantial role in contributing to the country's economy through export and through inland sales and at the same time supplying food to many and supporting thousands of families. Fisheries in India account for 2.5% of the gross domestic product and generate powerful income and employment opportunities for many of the country's rural poor. According to the **CMFRI Census 2010**, there are 3,288 marine fishing villages and 1,511 marine fish landing centers in 9 maritime states and 2 union territories. The total marine fisher folk population was about 4 million comprising 864,550

families. Nearly 61% of the fishermen families were under Below Poverty Line (BPL) category. The fishermen community in India may be the poorest of the poor. Living in inaccessible and remote coastal areas or along the riparian tracts and reservoir catchment area, the fishermen communities are largely benefited out of the schemes/programmes of the Government aimed at uplifting the socio-economic conditions of the poor rural communities.

Visakhapatnam district is one of the important maritime districts of Andhra Pradesh, the fishing households are busily engaged in all the sea shore- based activities like fish hunting, sorting, weighing, salting, drying, marketing, etc. However, their economic activities go unnoticed. There is no scientific and extensive study on the socio-demographic, economic and work activities of fishing households. Hence, a research is required inevitably to weed out the exploitation of the weaker section with total illiteracy living along the coastal line. It will throw light on their real contribution for economic development. This will also pave the way for providing proper compensation for their activities through suitable policy measures. The present research aims at studying the socio-economic and work related activities of fisher men/women in Visakhapatnam urban area.

Objectives

- To examine the socio - economic characteristics of the sample respondents in the study area
- To study the awareness and availability of government assistance to the respondents
- To examine the work related issues of the sample respondents in the study area

Scope of the Study

The present study is confined to the fishermen/ women in pedajalaripeta in the urban area of Visakhapatnam district. The present study focuses on the socio-demographic, economic and work related issues among fishermen/women with reference to the above said study area.

Method of Study

The study is intended to understand socio-demographic, economic and working conditions of fishermen/women (workers in the fishing sector) located at Visakhapatnam urban area. The study restricted to the individuals who are actively engaged in fishing at sea, selling fishes at place of reaching the shore, at fish markets and in the streets. The Visakhapatnam city was selected because it is historically pre dominant with the fishing sector. It is also inform that it is located at the side of Bay of Bengal with long seashore.

A brief structured schedule was prepared and after a small pilot survey, it was improved and basing on that information was collected from the individuals in the sample. The schedule includes basic socio-demographic and economic characteristics of the fishing workers and the work related issues that are prevailed in that process of fishing as well as selling.

The collected data on individual variables both socio-demographic, economic and work related variables are presented in a tabular form and analyzed with the help of percentages initially.

Further, statistical analysis was made on the collected data to assess the impact of working conditions on socio-demographic & economic variables with help of chi-square test for independence of attributes. While calculating chi-square values necessary care was taken by pooling (Yates correction was made if required) the data as and when the expected cell

frequencies are less than five. In such cases the degrees of freedom was accordingly adjusted and finally p-values are obtained and presented. Basing on the values of ‘p’ the interpretation was made.

Universe & Sampling

Keeping the money, time and man power in mind it is decided to consider a proper sample by applying suitable sampling technique. It is observed that the fishing occupation was located in ten different areas of urban part of the Visakhapatnam coastal area. Out of those ten areas, one area is selected randomly in the first stage of sampling. From that selected unit/area, the sample was collected using simple random sampling. This is a second stage of sampling. That is the selection of sample was done in two stages.

In the first stage of sampling the researcher got “Pedajalaripeta” area. There are around 3450 persons actively engaged in this profession under study. Here, sampling frame is very difficult. The researcher intends to collect the data from the five percent of them. These comes to 173 persons, those were selected randomly and collected data with the help of the structured schedule developed. Even after proper care, it was observed that 8 schedules were not properly filled and ultimately left with 165 schedules for data analysis.

Data Analysis

Basing on the information collected on the selected socio-demographic and economic profiles of the respondents are presented in Table 1. The classifications are as follows, the gender is classified as male & female, Age is less than 25 years, 25-35 yrs, 35-45 yrs and more than 45 years, Marital Status is Married, Unmarried, Widow/ Divorcee, Native place is Local & Non-local, Religion is Hindu & Christian, Education is Illiterate, Below 10th class, 10th class/ Inter/ ITI, Income per month is less than Rs. 8000, Rs. 8000 – 12000 & More than Rs. 12000, existing of savings & debts pattern is Yes or No and possessing Own house is Yes & No.

Table 1 Socio-Demographic & Economic Profile of the respondents

| Gender | No. of Respondents | Percent |
|------------------------------------|---------------------------|----------------|
| Male | 108 | 65.5 |
| Female | 57 | 34.5 |
| Age | | |
| < 25 yrs | 55 | 33.3 |
| 25 – 35 yrs | 63 | 38.2 |
| 35 – 45 yrs | 27 | 16.4 |
| > 45 yrs | 20 | 12.1 |
| Marital status | | |
| Married | 116 | 70.4 |
| Unmarried | 41 | 24.8 |
| Widow/ Divorcee | 8 | 4.8 |
| Native place | | |
| Local | 156 | 94.5 |
| Non local | 9 | 5.5 |
| Religion | | |
| Hindu | 144 | 87.3 |
| Christian | 21 | 12.7 |
| Education | | |
| Illiterate | 95 | 57.6 |
| Below 10 th class | 46 | 27.9 |
| 10 th class/ Inter/ ITI | 24 | 14.5 |
| Income per month | | |

| | | |
|------------------|------------|--------------|
| < Rs. 8000 | 102 | 61.8 |
| Rs. 8000 – 12000 | 49 | 29.7 |
| > Rs. 12000 | 14 | 8.5 |
| Savings | | |
| Yes | 49 | 29.7 |
| No | 116 | 70.3 |
| Total | 165 | 100.0 |
| Debts | | |
| Yes | 104 | 63.0 |
| No | 61 | 37.0 |
| Own House | | |
| Yes | 143 | 86.7 |
| No | 22 | 13.3 |
| Total | 165 | 100.0 |

From table 1 it can be said that out of the total respondents two third of them are male and remaining are female workers. In case of age, 33.3 percent of them are below 25 years age, 54.6 percent of them are between the age group of 35-45 years and remaining are above 45 years. In case of marital status, 70.4 percent are married and remaining is unmarried/ widowed and divorced. Majorities (94.5 percent) are locals and remaining are non-locals. Religion based classification shows that, 87.3 percent of them are Hindus, 12.7 percent are Christians. Classification based on education shows that, 57.6 percent are illiterate, 29.7 percent are below 10th standard and remaining are obtaining 10th & Intermediate/ ITI education. Also observed that 61.8 percent of them are having their income level below Rs. 8000, 29.7 percent having between Rs. 8000- Rs. 12000 and 8.5 percent are having above Rs. 12000. The saving pattern existed among the respondents is that, 70.3 percent are not able to save anything from their income and 29.7 percent of them have some savings from their income. Around two third (63 percent) have debts and remaining of them do not hold any debts. Also inferred that, 86.7 percent are possessing own house.

The information on the existing facilities at home as well as at workplace like possessing gas connection, having cycle/ other vehicle, possessing TV & Mobile, having poultry, Mechanized boats, Catamarans and Fishing nets are collected, classified and presented in Table 2.

Table 2 Facilities at home & workplace of the respondents

| Opinion | Gas Connection | | Cycle/ Other Vehicle | | Television | | Mobile | | Poultry | | Mechanized Boats | | Catamarans | | Fishing Nets | |
|---------|----------------|-------|----------------------|-------|------------|-------|--------|-------|---------|-------|------------------|-------|------------|-------|--------------|-------|
| | Res | % | Res | % | Res | % | Res | % | Res | % | Res | % | Res | % | Res | % |
| Yes | 152 | 92.1 | 144 | 87.3 | 152 | 92.1 | 150 | 90.9 | 125 | 75.8 | 15 | 9.1 | 138 | 83.6 | 152 | 92.1 |
| No | 13 | 7.9 | 21 | 12.7 | 13 | 7.9 | 15 | 9.1 | 40 | 24.2 | 150 | 90.9 | 27 | 16.4 | 13 | 7.9 |
| Total | 165 | 100.0 | 165 | 100.0 | 165 | 100.0 | 165 | 100.0 | 165 | 100.0 | 165 | 100.0 | 165 | 100.0 | 165 | 100.0 |

From Table 2, it is observed that 92.1 percent of them are having cooking gas connection, 87.3 percent of them are owned cycle/other vehicle, 92.1 percent of them having television, 90.9 percent of them possessing mobile, 75.8 percent of them are having poultry. 9.1 percent of them are having mechanized boats, 83.6 percent of them having catamarans and 92.1 percent of them are having fishing nets.

The information on the status of getting Government social assistance like possessing white ration card, utilization of subsidized loans for self employment, utilization of subsidized housing scheme, Aroghya Sree, Scholarships for children, Old age pension for old persons in your home and Pradhanamantri Jandhan Yojana are collected, classified and

presented in Table 3.

Table 3 Government’s Social Assistance Schemes for the respondents

| Opinion | White Ration Card | | Subsidized Loans for Self Employment | | Subsidized Housing Scheme | | Aroghya Sree | | Scholarships for children | | Old age Pension for Old persons | | Pradhan Mantri Jandhan Yojana | |
|---------|-------------------|-------|--------------------------------------|-------|---------------------------|-------|--------------|-------|---------------------------|-------|---------------------------------|-------|-------------------------------|-------|
| | Res | % | Res | % | Res | % | Res | % | Res | % | Res | % | Res | % |
| Yes | 165 | 100.0 | 128 | 77.6 | 113 | 68.5 | 165 | 100.0 | 165 | 100.0 | 165 | 100.0 | 132 | 80.0 |
| No | 0 | 0.0 | 37 | 22.4 | 52 | 31.5 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 33 | 20.0 |
| Total | 165 | 100.0 | 165 | 100.0 | 165 | 100.0 | 165 | 100.0 | 165 | 100.0 | 165 | 100.0 | 165 | 100.0 |

Table 3 is on the Government’s Social Assistance Schemes for the respondents. All are having white ration card, 77.6 percent of them are got subsidized loans for their self-employment, 68.5 percent of them are utilized subsidized housing scheme and all of them are have Aroghya Sree & Scholarship facility for the children. All are aware of old age pension scheme and all are getting this pension in their area and 80 percent of the respondents aware of Pradhan Mantra Jandhan Yojana.

The information on the work related variables namely, type of work, working hours per day, safety precautions, type of safety precautions, enrollment in state Govt. Bheema for unorganized labour, Trade Union/ Communal Associations and Membership status in those associations are collected, classified and presented in Table 4.

Table 4 Work related issues of the respondents

| Type of work | No. of Respondents | Percent |
|--|--------------------|---------|
| Fish hunting | 108 | 65.5 |
| Selling at shop | 28 | 17.0 |
| Selling in streets | 29 | 17.5 |
| Working hours per day | | |
| < 6 hrs | 12 | 7.3 |
| 6 – 8 hrs | 38 | 23.0 |
| > 8 hrs | 115 | 69.7 |
| Safety precautions | | |
| Yes | 60 | 36.4 |
| No | 105 | 63.6 |
| If yes, What type | | |
| Life jackets | 45 | 75.0 |
| First aid kit | 10 | 15.3 |
| Safety kit | 5 | 9.7 |
| Enrollment in State Govt. Bheema | | |
| Yes | 165 | 100.0 |
| No | 0 | 0.0 |
| Total | 165 | 100.0 |
| Existing of Trade union/ Communal Association | | |
| Yes | 165 | 100.0 |
| No | 0 | 0.0 |
| If yes, are you member? | | |
| Yes | 121 | 73.3 |
| No | 44 | 26.7 |
| Total | 165 | 100.0 |

Table 4 depicts about the work related issues of the respondents. It shows that out of the total respondents, 62.3 percent are going for fish hunting, 17 percent of them are selling at shops and 17.5 percent are selling in streets. 69.7 percent of them are working more than 8 hours and remaining are working less than eight hours per day. 36.4 percent of them taking

safety precautions at their work. Out of the total respondents who opted for safety precautions, 75 percent having life jackets, 15.3 percent having first aid kits, only 9.7 percent having safety kits. All respondents are enrolled in State Government Bheema for Unorganized workers and the Trade Union/ Communal Association are existed in their areas as per their opinion and 73.3 percent of them said that they are members in these Union/Association.

To know whether there is any significant change of different socio-demographic variables namely, Gender, Age, Marital Status, Religion and Levels of Education against economic & work related variables namely, Income per month, savings, debts, type of work, working hours per day, safety precautions and membership in trade union/ communal associations, the chi square test for independence of attributes was applied for all possible pairs of variables one from socio-demographic variables and second economic & work related variables. While calculating chi-square values necessary care was taken by making pooling as and when the cell frequencies are less than five and accordingly degrees of freedom was adjusted. The calculated chi-square values, degrees of freedom and p-values for each pair of variables are presented in tables 5 to 9, one each for socio-economic & work related variables.

Table 5
Chi Square, Degrees of freedom & p-value for Gender and Economic & Work related issues

| | Chi square | df | p-value |
|---|-------------------|-----------|----------------|
| Gender and Income per month | 3.772 | 1 | 0.052 |
| Gender and Savings | 13.025 | 1 | 0.000 |
| Gender and Debts | 7.228 | 1 | 0.007 |
| Gender and Type of Work | 165.000 | 2 | 0.000 |
| Gender and Working hours per day | 14.604 | 1 | 0.000 |
| Gender and Safety precautions | 3.220 | 1 | 0.073 |
| Gender and Membership in Trade Union/ Communal Associations | 8.339 | 1 | 0.004 |

From Table 5, it can be said that the variable Gender and Savings, Debts, Type of Work and Working hours per day are dependent as p-value is less than 0.05. Gender and Income per month & Safety precautions are independent as p-value is more than 0.05.

Table 6
Chi Square, Degrees of freedom & p-value for Age and Economic & Work related issues

| | Chi square | df | p-value |
|--|-------------------|-----------|----------------|
| Age and Income per month | 5.805 | 2 | 0.05 |
| Age and Savings | 11.700 | 3 | 0.008 |
| Age and Debts | 7.651 | 3 | 0.054 |
| Age and Type of Work | 18.243 | 2 | 0.000 |
| Age and Working hours per day | 2.49 | 2 | 0.287 |
| Age and Safety precautions | 3.077 | 3 | 0.380 |
| Age and Membership in Trade Union/ Communal Associations | 2.276 | 3 | 0.517 |

From Table 6, it can be said that the variable Age and Savings and Type of Work are dependent as p-value is less than 0.05. Age and all other remaining economic & work related variables are independent as p-value is more than 0.05.

Table 7
Chi Square, Degrees of freedom & p-value for Marital Status and Economic & Work related issues

| | Chi square | df | p-value |
|---|-------------------|-----------|----------------|
| Marital Status and Income per month | 0.205 | 1 | 0.650 |
| Marital Status and Savings | 0.834 | 1 | 0.361 |
| Marital Status and Debts | 0.443 | 1 | 0.505 |
| Marital Status and Type of Work | 2.382 | 2 | 0.303 |
| Marital Status and Working hours per day | 1.07 | 2 | 0.585 |
| Marital Status and Safety precautions | 0.597 | 1 | 0.439 |
| Marital Status and Membership in Trade Union/ Communal Associations | 3.613 | 1 | 0.057 |

From Table 7, it can be said that the variable Marital status and all Economic & work related variables except health problems due to work are independent as p-value is more than 0.05.

Table 8
Chi Square, Degrees of freedom & p-value for Religion and Economic & Work related issues

| | Chi square | df | p-value |
|---|-------------------|-----------|----------------|
| Religion and Income per month | 5.737 | 1 | 0.016 |
| Religion and Savings | 16.164 | 1 | 0.001 |
| Religion and Debts | 7.779 | 1 | 0.005 |
| Religion and Type of Work | 4.368 | 1 | 0.036 |
| Religion and Working hours per day | 4.919 | 1 | 0.026 |
| Religion and Safety precautions | 0.095 | 1 | 0.757 |
| Religion and Membership in Trade Union/ Communal Associations | 3.616 | 1 | 0.057 |

From Table 8, it can be said that the variable Religion and all the Economic & work related variables except safety precautions & Membership in Trade Unions/ Communal Associations are dependent as p-value is less than 0.05.

Table 9
Chi Square, Degrees of freedom & p-value for Education and Economic & Work related issues

| | Chi square | df | p-value |
|--|-------------------|-----------|----------------|
| Education and Income per month | 9.07 | 2 | 0.010 |
| Education and Savings | 1.121 | 2 | 0.571 |
| Education and Debts | 0.152 | 2 | 0.927 |
| Education and Type of Work | 9.118 | 2 | 0.010 |
| Education and Working hours per day | 1.489 | 2 | 0.474 |
| Education and Safety precautions | 3.243 | 2 | 0.198 |
| Education and Membership in Trade Union/ Communal Associations | 7.651 | 2 | 0.022 |

From Table 9, it can be said that the variable Education and Income per month, Type of work and Membership in Trade union/ Communal association are dependent as p-value is less than 0.05. Education and all other remaining economic & work related variables are independent as p-value is more than 0.05.

Findings

The present study reveals that majority of the respondents who are working as fishermen are male (65.5 percent). More than half of them are in below 35 years. A vast majority of them is married, majority of the respondents are locals and most of them are Hindus. Most of them are illiterates. In majority of the respondents the monthly income is less than Rs. 8000. Most of them do not have any savings and more than half of the

respondents are in debts. Majority (86.7 percent) of the respondents possessing own house. The study further reveals that most of the respondents are having facilities at house such as Gas Connection, Cycle/other vehicles, Television, Mobile phone and Poultry.

With regard to the facilities at work place, it is found that less number of them has mechanized boats; most of them are having catamarans and fishing nets. The study reveals that, majority of the respondents are utilized subsidized loans for self-employment, subsidized housing scheme and Pradhan Mantri Jandhan Yojana. All of the respondents are possessing white ration card, enrolled in Aroghya Sree scheme, utilized/aware about scholarships for children's education and Old age pension for Old persons.

The study also reveals that, the type of work carried by most of the respondents is in fish hunting. A vast majority of the respondents are working more than eight hours per day, only around one third (36.4) of the respondents take necessary safety precautions at their work, the most popular safety precaution is life jackets at the time of fish hunting. All of the respondents are enrolled in State Government Bheema for unorganized workers, all of them are having Trade Union/ Communal Associations and majority of them are enrolled in those union/associations.

Conclusion

The fishermen community faces many problems including life threats in their day-to-day working and at living places. Their working and living conditions are more pathetic than that of the small and marginal farmers. In the case of fishermen, natural, political and technical problems create lot of uncertainties, which they cannot overcome. This study brings out important outcomes about their socio-demographic & economic characteristics, social security and assistance from governments, facilities at home and workplace, safety and existence of Trade unions/Associations. Fishermen/ women are deprived groups of workers, living in slums; Government should take necessary steps to improve the infrastructure for improving the lives of fishermen. Government must provide technology and subsidized mechanized boats for safety and profitable fish hunting. These will help to improve the standard of living to these fishermen groups.

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